

**Amendments to the Claims:**

Claim 3 has been canceled, claims 1, 2 and 4 through 15 have been amended, and new claims 16 through 18 are presented herein. Please note that all claims currently pending and under consideration in the referenced application are shown below. Please enter these claims as amended. This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

1. (Currently Amended) A system for applying a modifying composition to a non-equidimensional substrate, comprising:

a processing chamber configured for passing the non-equidimensional substrate therethrough, ~~said the~~ processing chamber being further configured to accept a treatment mixture into the chamber during movement of the non-equidimensional substrate through the processing chamber, ~~said where the~~ treatment mixture ~~comprising~~ comprises the modifying agent in a ~~carrier medium~~, ~~said carrier medium being~~ selected from the group consisting of a supercritical fluid, a near-critical fluid, a superheated fluid, a superheated liquid, and a liquefied gas, ~~said such that the~~ modifying agent ~~being~~ is applied to the non-equidimensional substrate upon contact between the treatment mixture and the non-equidimensional substrate; ~~and~~

an adjustable entry seal in communication with the processing chamber, the adjustable entry seal adjustable to various sizes to accept various non-equidimensional substrates for modification and comprising an opening substantially matching a cross-section of a non-equidimensional substrate and an entry seal chamber containing a seal gas such that any fluids within the system are unable to leak into an atmosphere surrounding the system.

2. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 1, wherein the processing chamber ~~further~~ comprises a first region,

a second region, and

a constricted medial region between the first region and the second region, and wherein the modifying agent is separated from the carrier medium upon a pressure drop when the treatment mixture is introduced into the constricted medial region, such that the modifying agent is applied to the non-equidimensional substrate.

3. (Canceled).

4. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 3, further comprising an exit seal that ~~essentially~~ matches and is slightly larger than a cross-section of the non-equidimensional substrate.

5. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 1, wherein the processing chamber configured for passing the non-equidimensional substrate therethrough comprises a processing chamber configured for passing therethrough a non-equidimensional substrate is selected from the group consisting of sheet-like substrates, U-shaped substrates, corrugated substrates, and angled substrates.

6. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 5, wherein the processing chamber configured for passing therethrough a non-equidimensional substrate comprises a processing chamber configured for passing therethrough a sheet-like substrate is selected from the group consisting of a plate, a ribbon, a sheet, a screen, and a plied material.

7. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 4, wherein the system is configured to remove the non-equidimensional substrate ~~is removed~~ from the exit seal at the same rate ~~that at which~~ the non-equidimensional substrate is continuously fed into the chamber through the adjustable entry seal.

8. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 4, further comprising

at least one expansion chamber disposed between the adjustable entry seal and the processing chamber, and

at least one expansion chamber between the exit seal and the processing chamber.

9. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 8, wherein the adjustable entry seal and the exit seal ~~are comprise~~ fluid filled chambers ~~which configured to~~ maintain a pressure that is at least slightly greater than pressures in the adjacent expansion chambers.

10. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 9, wherein the ~~pressure is maintained~~ adjustable entry seal and the exit seal are configured to maintain a pressure that is at least slightly greater than the adjacent expansion chambers by continuous inflow of a gas.

11. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 10, wherein the adjustable entry seal and the exit seal are configured to maintain a pressure that is at least slightly greater than pressures in the adjacent expansion chambers by continuous inflow of a gas that is inert with respect to the treatment mixture.

12. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 1, further comprising a pressure regulator configured for controlling wherein pressure is ~~controlled~~ in the processing chamber by ~~a pressure regulator~~.

13. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 1, further comprising a temperature regulator configured for controlling wherein the temperature is ~~controlled~~ in the processing chamber by ~~a temperature regulator~~.

14. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 1, further comprising a substrate feed controller configured for controlling ~~the~~ a speed at which the non-equidimensional substrate is passed through the system.

15. (Currently Amended) ~~A~~ The system ~~as in~~ of claim 4, wherein the ~~entry end seal and the exit seal are~~ is adjustable to various sizes for accepting various non-equidimensional substrates for modification.

16. (New) The system of claim 1, wherein the adjustable entry seal in communication with the processing chamber and adjustable to various sizes to accept various non-equidimensional substrates for modification comprises an adjustable entry seal configured for accepting a non-equidimensional substrate selected from the group consisting of corrugated substrates, u-shaped substrates, angled substrates and irregularly shaped substrates.

17. (New) The system of claim 1, wherein the processing chamber configured for passing the non-equidimensional substrate therethrough comprises a processing chamber configured for passing multiple substrates therethrough simultaneously when arranged in an adjacent manner so as to present a non-equidimensional cross-sectional footprint in a direction co-linear to the system.

18. (New) The system of claim 17, wherein the processing chamber configured for passing multiple substrates therethrough simultaneously when arranged in an adjacent manner so as to present a non-equidimensional cross-sectional footprint in a direction co-linear to the system comprises a processing chamber configured for passing multiple equidimensional substrates therethrough simultaneously when arranged in a side-by-side manner, a top-to-bottom manner, or encircled about each other.